

MINIATURE
CATALOG
of
SWARTWOUT
·S TEAM·
SPECIALTIES

151-A

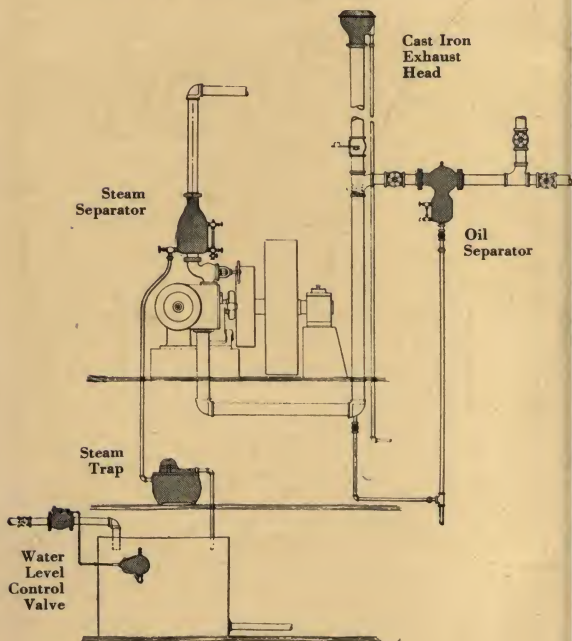
#13

Industrial Requirements Co.

136 Chestnut Street

Philadelphia

Proper Installation of the "Swartwout" Vertical Steam Sep- arator, Horizontal Oil Separator, Steam Trap, Water Level Control Valve, and Cast Iron Exhaust Head



Drip from separator should be carried full size to trap, and drip from exhaust head full size to catch-basin or sewer.

MINIATURE
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SWARTWOUT
STEAM
SPECIALTIES

151 - A

THE OHIO BLOWER CO.
MANUFACTURERS
CLEVELAND, OHIO

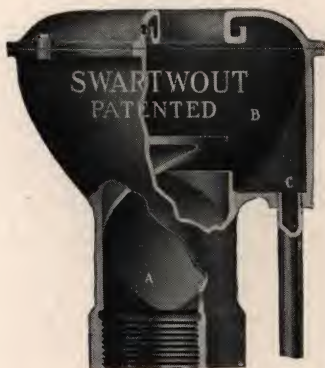
SWARTWOUT STEAM SPECIALTIES

Miniature Catalog
151-A

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SWARTWOUT CAST IRON EXHAUST HEADS



THE simplest application of the helico-centrifugal principle is found in the "Swartwout" Cast Iron Exhaust Head. As the whirling steam emerges from the helix tube A into the expanding portion of the head, the water particles, which have been given a circular motion by the helix, are flung far outward. The water collects in the annular chamber B, and is removed through the drip pipe C. The cast iron construction is another feature of equal importance. Cast iron exhaust heads will last a lifetime; they are light and ornamental.

Companion flanges furnished on sizes 6" to 10" inclusive without extra charge.

We Guarantee that the "Swartwout" Cast Iron Exhaust Head, when properly applied, will completely entrap the water and oil, and will produce no back pressure; that it is simpler, has fewer parts, and greater durability than any other exhaust head on the market. *Any head sent anywhere on thirty days' trial, subject to this guarantee.*

SWARTWOUT GALVANIZED EXHAUST HEADS



(Patented)

LIKE the "Swartwout" all-cast-iron exhaust head, the galvanized head is characterized by extreme simplicity. It has no baffle plates or other interior obstructions common to all other galvanized exhaust heads. It imposes no back pressure.

The drum is built of heavy galvanized steel closely riveted and soldered, and secured to a substantial cast iron base.

The "Swartwout" construction allows a wide latitude in form and dimensions, making it adaptable to all special conditions.

List Prices same as for Cast Iron Exhaust Heads, page 5.

Companion Flanges not furnished on galvanized heads except at extra cost.

We Guarantee that the "Swartwout" Galvanized Exhaust Head is simpler, of more perfect design, better made, has less wearing parts and fewer obstructions to the free passage of steam, will last longer, and perform better service than **any** other galvanized exhaust head upon the market; and that it will completely entrap the water and oil, and produce no back pressure upon the engine.

Sold on thirty days' trial to any responsible user.

SWARTWOUT EXHAUST HEADS

Cast Iron

Galvanized Steel

PRICE LIST

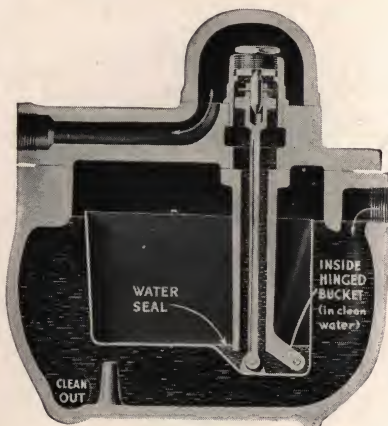
Subject to Discount

Net Prices Quoted on Request

Size of Exhaust Pipe Inches	Price	Size of Exhaust Pipe Inches	Price
1	\$ 20.00	12	\$150.00
1½	20.00	14	200.00
2	25.00	16	250.00
2½	25.00	18	300.00
3	30.00	20	360.00
3½	30.00	22	450.00
4	40.00	24	600.00
4½	40.00	26	700.00
5	50.00	28	800.00
6	60.00	30	900.00
7	75.00	32	1000.00
8	90.00	34	1100.00
10	125.00	36	1200.00

Sizes 5-inch and smaller are tapped with Briggs standard steam pipe threads. Larger sizes are equipped with standard flanges conforming in dimension to the schedule adopted March 20th, 1914, by a joint committee of the National Association of Master Steam and Hot Water Fitters, The American Society of Mechanical Engineers and The Committee of Manufacturers on Standardization of Fittings and Valves. Companion flanges furnished on C. I. heads sizes 6-inch to 10-inch without extra charge.

SWARTWOUT HYDROMATIC STEAM TRAP



(Patented)

RISING water fills the bucket, causing the left side to drop until it strikes the bucket stop. This lever action on the pull rod opens the discharge valve wide. Steam pressure empties the bucket and it then rises by its own buoyancy, closing the valve.

The Hydromatic Trap has many exceptional features. A patented and exclusive point is a perfect water seal that effectively prevents the escape of all steam. By the use of the inside hinged bucket the swirl of the water in passing also keeps the hinge free from scale or sediment and prevents clogging.

The design, construction and materials permit any trap to be used at all pressures up to 250 pounds merely by substituting the interchangeable valves and seats. Wear is at a minimum; the valve and seat are the only moving parts, they are made of Monel metal and reversible.

PRICE LIST “SWARTWOUT” HYDROMATIC TRAP

All sizes can be fitted with valves and seats suitable for pressures from 0 to 250 pounds. When ordering state the highest operating pressure. If no pres- sure is specified, traps will be fitted with 150 pound valves.	SIZE	CAPACITY			WEIGHT	PRICE
		Linear ft. of 1 in. pipe	Square ft. of Radiation	Pounds of Water per hour		
	1½ in.	9000	3000	1000	35	\$18.00
	¾ in.	15300	5100	1700	60	22.00
	1 in.	18000	6000	2000	90	28.00
	1¼ in.	40500	13500	4500	120	35.00
	1½ in.	50400	16800	5600	170	50.00
	2 in.	70650	23550	7850	250	70.00

GIVE HIGHEST PRESSURE UNDER WHICH TRAP IS TO OPERATE

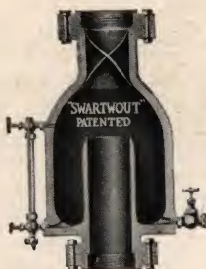
Unless otherwise specified, 150 lb. valve will be supplied.

GUARANTEE

The Hydromatic is guaranteed to perform up to rated capacity and to be free from defective material or workmanship.

SWARTWOUT VERTICAL STEAM SEPARATOR

(Patented)



IT is recognized that steam separators are necessary elements in a power plant having any pretension to economy or completeness; but it is equally true that the advantages may be more than offset by the loss of pressure inevitable in separators of the impact type.

The simplest and most practical separator now on the market is that embodying the helico-centrifugal principle which gradually gives the water particles a spiral motion and causes them to be thrown outward by centrifugal force.

The separation is positive and furnishes steam which is 99% dry; because of the simple direct flow this is accomplished with absolute freedom from back pressure.

The large capacity of the chamber or reservoir takes care of all water coming over from the boiler, thereby protecting the engine.



(Patented)

SWARTWOUT HORIZONTAL STEAM SEPARATORS

THE direct-flow feature of the "Swartwout" Vertical Steam Separator is noticeable in all forms built upon the helico-centrifugal principle. The chambers are exceedingly large so that shaking or vibration of the pipes due to sudden closing of steam valves is entirely avoided; there is an entire absence of baffle plates and other obstructions—there is nothing simpler.

All horizontal separators larger than the 3" size are provided with eyebolts to facilitate installation.

SWARTWOUT VERTICAL ANGLE TYPE STEAM SEPARATORS

THE "Swartwout" Steam Separators are manufactured in a variety of designs which make installation easy without additional bends in steam piping.

The angle type takes the place of an elbow.



(Patented)



Vertical Type



Angle Type

RECEIVER TYPE

Prices gladly quoted on request

"Swartwout" Receiver Separators are made of wrought steel in a large variety of designs, for working pressures up to 250 pounds per square inch.

SWARTWOUT CAST IRON STEAM SEPARATORS

(Pages 8-9)

PRICE LIST

Size Pipe Inches	Price Vertical Type	Price Horiz'tal Type	Size Pipe Inches	Price Vertical Type	Price Horiz'tal Type
1	\$20	\$20	4½	\$ 80	\$ 80
1½	25	25	5	95	95
2	35	35	6	120	120
2½	45	45	7	140	140
3	50	50	8	175	175
3½	60	60	10	250	250
4	70	70	12	300	300

Prices include flanges, bolts, water-gauges, outlet valve and nipple. Discounts on application. Unless ordered otherwise the bolt holes of flanges will be drilled to straddle the vertical center-line.

Our Guarantee—Any "Swartwout" Steam Separator will be sent to any responsible user subject to the guarantee that it shall be satisfactory in every respect, otherwise it may be returned, and full credit will be given and freight paid both ways.

SWARTWOUT HORIZONTAL OIL SEPARATORS



THE harmful effect of oil in boiler feed water and in exhaust steam used in heating and drying systems is a matter of common knowledge. Of the methods and devices used to remove oil from steam those built upon the helico-centrifugal principle are most successful. The oil, being merely mechanically mixed with the steam, is readily removed by centrifugal

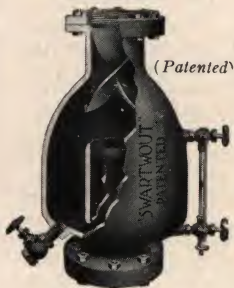
force and in "Swartwout" cast iron oil separators, the oil, once thrown out of line, is absolutely prevented from escaping with the steam.

The "Swartwout" Separators secure maximum efficiency and durability; all parts are of ample strength to withstand the working pressure. Baffle plates have been eliminated—there is absolutely no interference with the direct flow of steam. For convenience they are made in many styles—for vertical pipes and for horizontal pipes. The larger sizes of the horizontal type are made in two or three pieces to facilitate installation. All sizes of horizontal separators larger than the 3" size have eyebolts.

We Guarantee that when the engine is properly lubricated with a quality of oil that will not vaporize at the temperature due to the steam pressure used, the "Swartwout" Oil Separator will so thoroughly remove the oil from exhaust steam, that as steam or water of condensation, it may be used for heating water by direct contact, feeding boilers and the like. If it fails to perform this service it may be returned and full credit will be given.

SWARTWOUT VERTICAL OIL SEPARATORS

Size 12 in.
and Smaller



THE "Swartwout" Vertical Oil Separators are made in two styles, for up current and for down current.

The helico-centrifugal principle as used in "Swartwout" Oil Separators of all types is equally effective for taking oil out of steam in vacuum systems.

OIL SEPARATORS PRICE LIST

Size Pipe Inches	Price Standard Vertical Down- Current	Price Standard Vertical Up-Current	Price Standard Horizontal
1½	\$ 35	\$ 38.50	\$ 35
2	45	49 50	45
2½	50	55.00	50
3	60	66.00	60
3½	65	71.50	65
4	75	82.50	75
4½	80	88.00	80
5	90	99.00	90
6	115	126.50	115
7	135	148.50	135
8	165	181 50	165
10	240	264.00	240
12	280	308.00	280
14	350	385.00	350
16	425	467 50	425
18	500	550.00	500
20	600	660.00	600

Prices include water-gauge, drip valve, nipple and companion flanges and bolts on sizes 12 inches and smaller. On sizes 14 inches and larger an extra charge will be made for companion flanges.

SWARTWOUT

HYDROMATIC WATER- LEVEL CONTROL VALVE

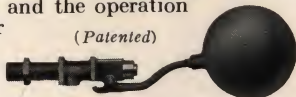


(Patented)

MAINTAINS
A constant water-level in open heaters, tanks, vats, reservoirs, etc. The controlling valve is opened or closed by its pilot valve (see lower cut) controlled by its float. The float rising or

falling with the water opens or shuts the pilot valve which in turn causes the water to flow through or back up in the auxiliary pipe running from the main valve to the pilot valve. This opens or shuts the Hydromatic valve that controls the main inlet. The design is simple and the operation positive. For complete details get Bulletin No. 214.

(Patented)



List Prices of Hydromatic Valves

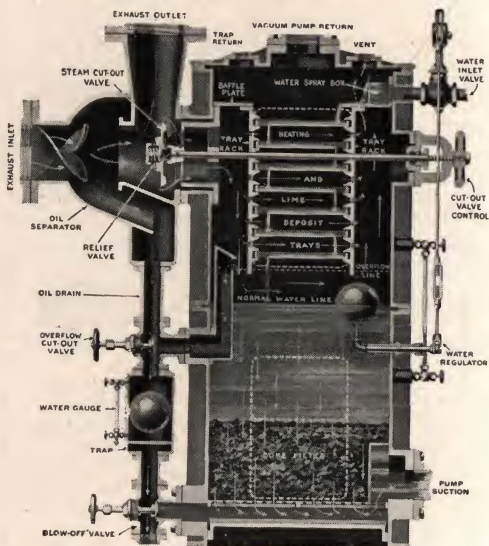
Size	Cast Iron Body Brass Mounted	Brass Body
1 -inch	.....	\$22.50
1 1/4 -inch	.....	27.50
1 1/2 -inch	.....	35.00
2 -inch	\$ 30.00	.....
3 -inch	55.00	.....
4 -inch	70.00	.....
6 -inch	130.00	.....

Parts List

5-inch Seamless Copper Float.....	\$ 2.50
Brass Pilot Valve complete.....	7.50
Casing for Float C. I.....	10.00

Prices on sizes above 6-inch furnished on request. Prices on Valves include seamless copper float and brass pilot valve complete. **Casing extra.** Sizes 1-inch to 6-inch carried in stock. All valves must pass our standard test before leaving factory.

SWARTWOUT ALL-SERVICE FEED WATER HEATER AND RECEIVER



The "Swartwout" Feed Water Heater has a higher standard of efficiency and economy than has ever before been attained in a feed-water heater. It has many features never before thought possible. It is an adjunct to your power plant you should investigate.

SWARTWOUT ALL-SERVICE FEED WATER HEATER AND RECEIVER

THE Swartwout Heater and Receiver Type Feed Water Heater, Style A, is a complete heater in all that the word "complete" implies, designed for and adapted to all kinds of service to which an open or direct type heater may be subjected.

It will heat your feed water up to 208 to 212 degrees at all times and effect a saving of 12% to 30% of your operating expense for coal and water bills, varying according to water conditions.

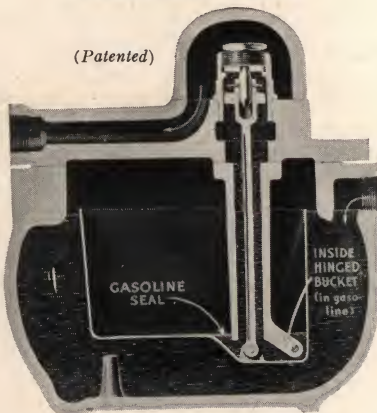
The Swartwout Feed Water Heater, being of unit design and construction, permits immediate and economical expansion of the heater already in use to provide for the increase in size or number of your boilers. By the installation of additional units without material change in your piping, the heater can be enlarged to keep pace with the growth of your plant, and never needs to be scrapped or sold at a depreciated price.

A feed water heater should bear, in cubical contents, a fixed relation to the boiler it serves. Divide the boiler horse-power by 10 and you get the proper cubical contents of your heater in cubic feet—the size that will most economically heat your feed water.

*Send for complete description,
specifications and prices*

SWARTWOUT GASOLINE TRAP

(Patented)



KEEPS the gasoline in gas condensing tanks at an exact, uniform height.

The illustration shows the trap just before discharge. The rising gasoline fills the bucket, causing left side of bucket to drop to post below.

The lever action of the hinged bucket on the pull rod opens the discharge valve wide. The force of the pressure in the condenser empties the bucket and buoyancy then lifts the bucket, closing the valve.

The perfect gasoline seal within the bucket absolutely prevents a wastage of pressure from the tank; a patented feature exclusive with this trap. The bucket is of aluminum and is hinged on the inside.

The presence of only two moving parts reduces wear to a minimum. Valve and seat (reversible) are of Monel metal. The easy removal of the small upper "cap" exposes these parts instantly.

The "Swartwout" Gasoline Trap is fully guaranteed against defective material or workmanship.

PRICES

Size	Weight	List Price
$\frac{3}{4}$ "	60	\$22.00
1"	90	28.00
$1\frac{1}{4}$ "	120	35.00
$1\frac{1}{2}$ "	170	50.00
2"	250	70.00

Traps carried in stock for 80 and 300 pounds pressure, but can be furnished on special order for any pressure.

SWARTWOUT

CASINGHEAD GASOLINE-OIL SEPARATORS

THE Swartwout meets successfully the most exacting requirements of the Casinghead Gasoline industry. It effectively removes all foreign substances—liquid or solid, gasoline, crude oil, lubricating oil, sand or water—from the gas without loss of operating pressure.



The action is simple and effective. The principle of centrifugal force is used to separate all foreign matter from the gas. This is the simplest and most positive method known.

Swartwout Separators are made of cast iron, very heavy and substantial. They are built for two different pressures, one for pressures up to 125 pounds, the other for pressures from 125 to 300 pounds. Receiver capacity is extra large. The gauge glass may be placed on either side, which makes it equally convenient for use at either the compressor discharge or cooling coils. Both types are provided with eyebolts for easy installation.

The Swartwout Casinghead Gasoline-Oil Separator is guaranteed to deliver gas 99% free from all entrainment and to produce no back-pressure.

LIST PRICES

3-Inch		4-Inch		5-Inch	
125 lbs. pressure	300 lbs. pressure	125 lbs. pressure	300 lbs. pressure	125 lbs. pressure	300 lbs. pressure
\$55.00	\$60.50	\$77.00	\$84.70	\$104.50	\$114.95

SWARTWOUT HORIZONTAL AIR SEPARATORS



(Patented)

of expansion, sometimes to the freezing point even in warm weather.

ALL users of compressed air at times experience trouble with deposits of water. Oil from the compressor follows the air and rots the flexible rubber hose used with air tools. When high pressures are used it cools at the point

Air tools, such as hammers, chippers, drills, and hoists must be supplied with air that is as nearly dry as possible. Water in the air will cause trouble by knocking, etc., while in cold weather they may be damaged by freezing. In foundry practice water in the air line is a source of continual annoyance.

The Swartwout Helico-Centrifugal Horizontal Air Separators will remove all condensation, oil and sedimentation from the air.

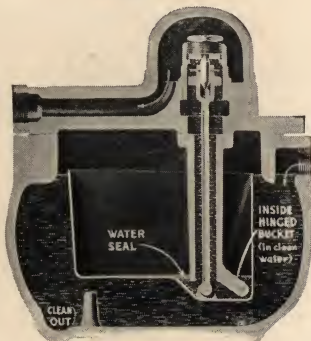
The "cork screw" helix imparts a whirling motion to the air, and the centrifugal force thus set up throws all the heavy particles of water and oil to the outside walls of the chamber, where they run down and are collected and blown off. Nothing but dry air leaves the chamber. There are no baffle plates or angles to reduce the pressure.

DIMENSIONS AND PRICES—AIR SEPARATORS

Size of Pipe Inches	Principal Dimensions in Inches								Net Weight Pounds	Prices
	Body					Flanges For 125 lbs. Pressure				
	A	B	C	D	E	F	G	H		
1½	12¼	3¾	15¼	½	5	3⅞	4	½	\$25.00	
2	13½	4⅛	17	½	6	4¾	4	⅝	35.00	
2½	14¾	4½	18¾	¾	7	5½	4	⅝	45.00	
3	16⅜	5	20¼	¾	7½	6	4	⅝	50.00	
3½	18	5⅜	20¾	1	8½	7	4	⅝	60.00	
4	20	5⅞	23½	1	9	7½	8	⅝	70.00	
4½	22	6¾	24¾	1¼	9¼	7¾	8	¾	80.00	
5	23½	7	25½	1¼	10	8½	8	¾	95.00	
6	27	8	33½	1¼	11	9½	8	¾	120.00	
7	30½	8⅞	36	1¼	12½	10¾	8	¾	140.00	
8	34	10	39	1½	13½	11¾	8	¾	175.00	
10	37½	11¾	43¾	1½	16	14¼	12	7⁄8	250.00	
12	38¾	13½	44¼	2	19	17	12	7⁄8	300.00	

Separators are also equipped with "Extra Heavy" Flanges for pressures up to 250 lbs.

SWARTWOUT HYDROMATIC AIR TRAP



(Patented)

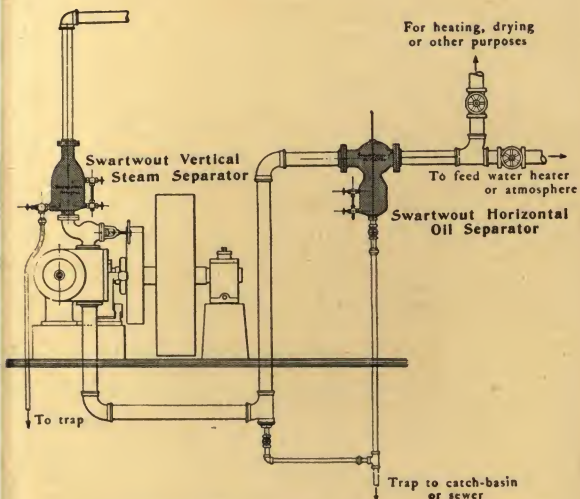
SWARTWOUT Air Traps are indispensable for the proper draining of air lines regardless of the use to which air is employed. If an accumulation of water or oil is allowed to form, it is sure to pass along with the air in slugs and cause damage to the air-operated machines.

A Swartwout Air Trap will positively collect all condensate, oil or sediment and discharge it without loss of air pressure.

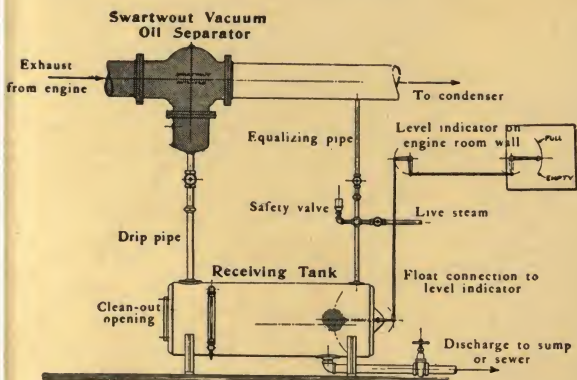
The trap will work under any pressure up to 250 pounds. Each trap is fully guaranteed as to material, workmanship and operation.

DIMENSIONS AND PRICES

Size Inches	Pounds of Water per Hour	Weight	Price
1/2.....	1,000	35	\$18.00
3/4.....	1,700	60	22.00
1.....	2,000	90	28.00
1 1/4.....	4,500	120	35.00
1 1/2.....	5,600	170	50.00
2.....	7,850	250	70.00



Proper Installation of the "Swartwout"
Steam and Oil Separators



Method of Connecting Vacuum Oil Separator

SWARTWOUT · S T E A M · SPECIALTIES

**Steam, Oil and Air
Separators**

**Casinghead Gasoline - Oil
Separators**

Feed Water Heaters

Exhaust Heads

**Steam, Gasoline and
Air Traps**

**Water-Level Control
Valves**

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